

Alcohol Misuse

Alcohol use among U.S. adults is a topic of considerable public health importance. The toll alcohol exacts on society, individual health, and the economy is staggering. The adverse effects of excessive consumption of alcohol are well documented. Annually, about 100,000 deaths in the United States are linked to alcohol consumption. Abuse of alcohol has been linked to a variety of diseases including heart disease, liver, oral and esophageal cancer, hepatitis, gastrointestinal disorders, cirrhosis of the liver, and mental illness. Alcohol is estimated to be a factor in half of all motor vehicle fatalities. According to the National Highway Traffic Safety Administration (NHTSA), over 40% of the total traffic fatalities in 1995 and 1996 were alcohol-related. In addition, alcohol use by pregnant women can adversely affect birth outcomes, resulting in low birth weight or babies born with fetal alcohol syndrome. From a public health perspective, alcohol use is a complex behavior involving biological, psychological, and social processes.

Questions on the BRFSS address different measures of alcohol consumption. Respondents were asked if they have had at least one drink of any alcoholic beverage such as beer, wine, wine coolers, or liquor in the past month, and those answering "yes" were considered current drinkers. Three other questions were also asked to measure chronic drinking, acute or binge drinking and drinking and driving. Acute (binge) drinking represents excessive drinking within an isolated time frame; at risk respondents had five or more alcoholic drinks on a single occasion. Chronic drinking occurs over an extended period of time; those at risk for chronic drinking consume on the average two or more drinks per day, i.e., 60 or more drinks per month. These chronic drinkers increase their chances of cirrhosis of the liver. BRFSS respondents who are at risk for drinking and driving reported that one or more times they have driven after perhaps having too much to drink.

Questions on alcohol consumption were not asked in the 2000 survey as these questions are part of the "rotating core."

Current Alcohol Use

In 1999, 105,389 adults of 18 years (58%) and over had at least one drink of an alcoholic beverage in the month prior to the survey (95% CI, 55% -61%).

Prevalence and Trend

The percentage of Lancaster BRFSS respondents who reported having one drink in the past month in the 1993-1995 and 1996-1998 were 63.4 percent and 63.6 percent respectively. More men (61.4%) than women (54.4%), more whites (59.5%) than non-whites (35%) and more younger (67% of adults aged 18-24 years) than older (28% of adults aged 75 or more) respondents reported to have consumed alcohol in the past month (Table 16).

Table 16: Consumed at least One Drink in The Past Month

Years	1993-1995	1996-1998	1999
SEX			
Male	73.2%	66.6%	61.4%
Female	52.7%	60.3%	54.4%
Race			
White	63.6%	63.4%	59.5%
Non-White	58%	67.6%	35%
Age Group			
18-24	74.4%	76.4%	67.6%
25-34	70.6%	71.6%	67.3%
35-44	72%	64.3%	59.7%
45-54	59.1%	61.1%	56.1%
55-64	56.6%	63.9%	46.9%
65-74	40.8%	52.9%	42.9%
75+	28.3%	13.8%	28.1%

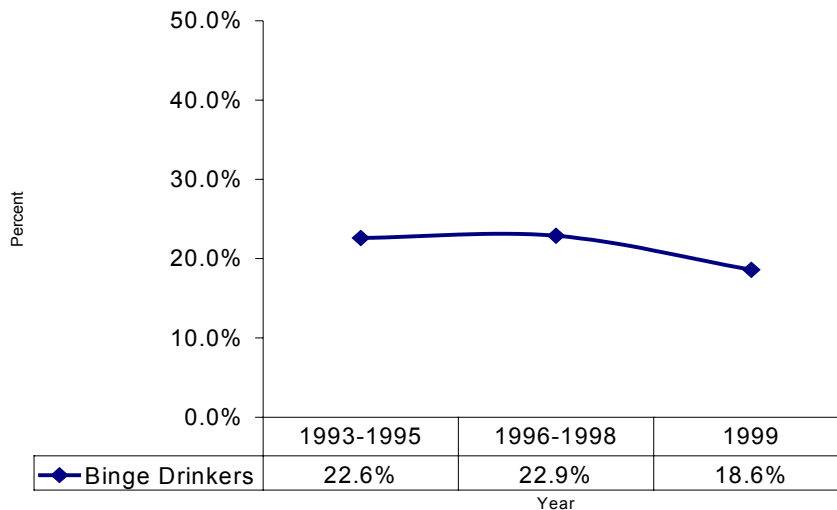
Binge Drinking

The BRFSS defines binge drinking as having five or more drinks on one occasion, one or more times during the month prior to survey. About 18.6 percent (95% CI, 16.2% - 21%) of the adults in the Lancaster County were “binge drinkers”. This number represents an estimated 33,797 adults (18.6 percent of 18,1705 adult population in 1999) in the County.

Prevalence and Trends

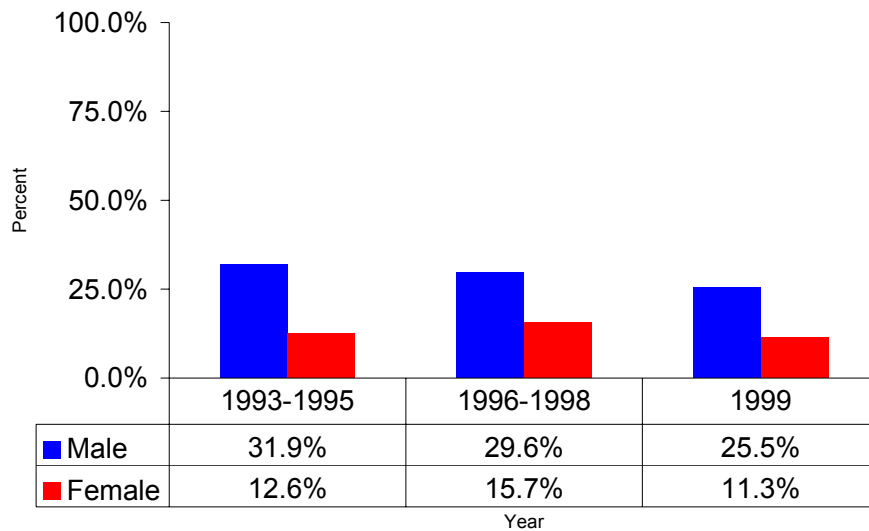
The proportion of binge drinkers has decreased by approximately 4 percent in 1999, after maintaining steady rates (around 22%) over the past few years (Fig.62).

Fig.62: Trend in Binge Drinkers



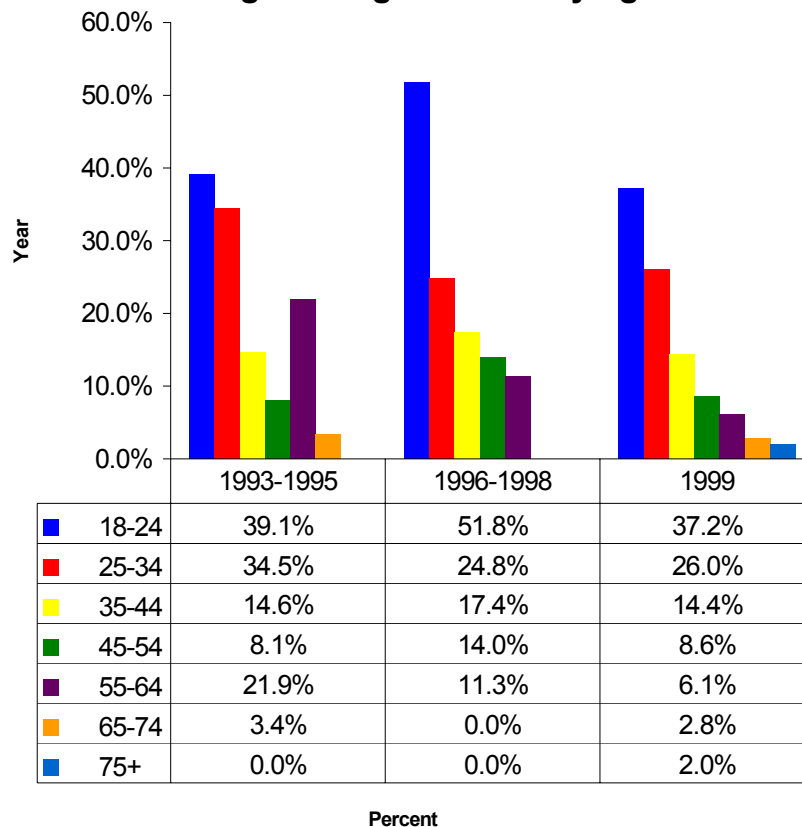
There were significant gender and age differences among the respondents. More than one-fourth (25.5%) of men respondents reported binge drinking compared to little over one-tenth (11.30%) of women (Fig.63).

Fig.63: Binge Drinking by Gender



Young people (18 to 24 years of age) were more prone to engage in binge drinking. In 1999, more than one-third (37.2%) of the respondents of this age group reported binge

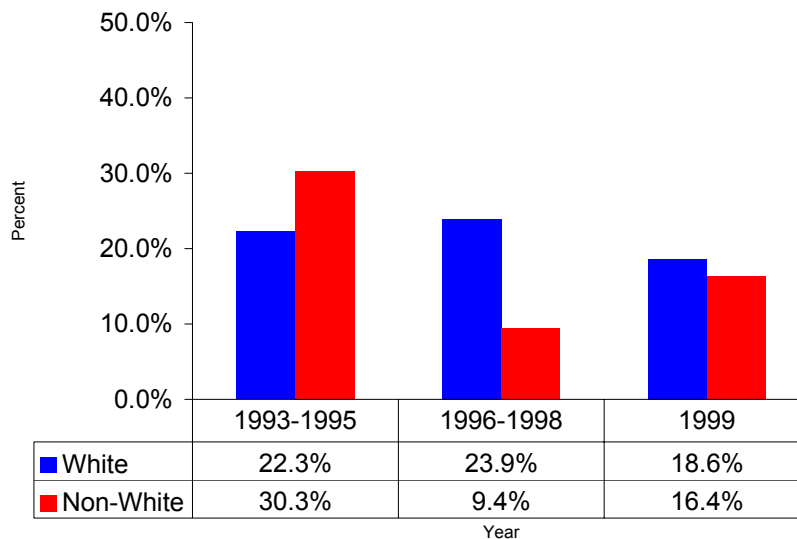
Fig.64: Binge Drinkers by Age



drinking. Conversely only 2 percent of adults age 75 or more reported such drinking behavior. Younger age group's predilection for binge drinking was evident in a period covered by this report (Fig.64).

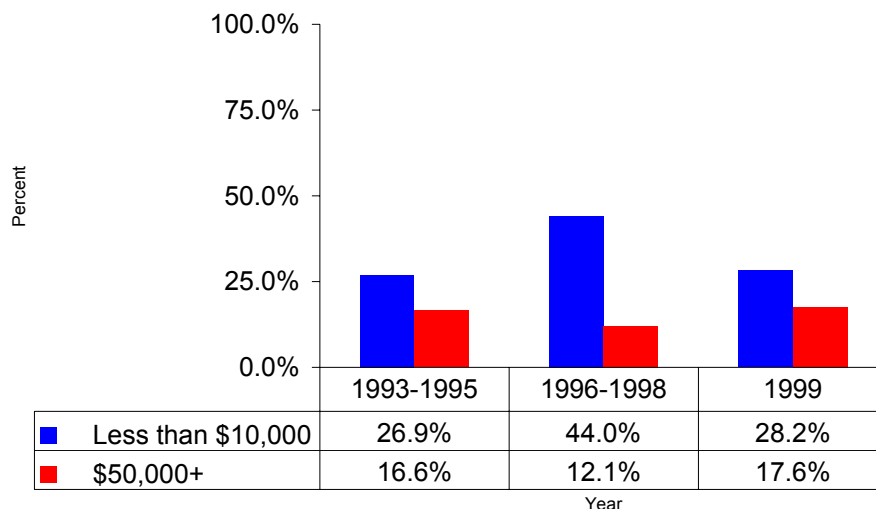
Whites (18.6 percent) were more likely to report binge drinking than non-whites (16.4%). However, in 1993-1995 survey period, more non-white (30.3%) than whites (22.3%) reported such pattern of drinking (Fig.65).

Fig.65: Binge Drinking by Race



A considerable difference in drinking habits were observed according to respondents education and income level. Approximately 21 percent of respondents with “some high school or less education” reported consuming five or more drinks of alcohol on an

Fig.66: Binge Drinking by Income



occasion one or more times during the past month as compared to only 13.3 percent of college graduates (Table 17). Only 17.6 percent of adults earning \$50,000 or more were classified as binge drinkers in comparison to 28.2 percent of adults with less than \$10,000 income. This remarkable difference between high income and low income was evident throughout the periods covered by this report (Fig.66).

Table 17: Binge Drinking			
Years	1993-1995	1996-1998	1999
Highest Grade Completed			
Some HS or Less	0%	33.3%	20.6%
HS Grade or GED	29.4%	20.3%	13.5%
Some College	27.8%	31.1%	27.9%
College Grade	15.9%	12.8%	13.3%
Annual Household Income			
Less than \$10,000	26.9%	44%	28.2%
\$10,000 - \$15,000	24.7%	23%	21.6%
\$15,000 - \$20,000	25.1%	51.5%	20%
\$20,000 - \$25,000	33.7%	18%	19.8%
\$25,000 - \$35,000	22.3%	18.6%	22.9%
\$35,000 - \$50,000	24%	19.6%	17.6%
\$50,000+	16.6%	12.1%	17.6%

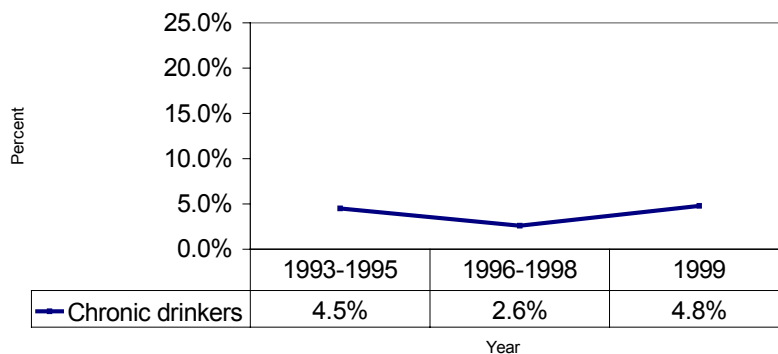
Chronic Drinking

In 1999, an estimated 4.8 percent (95% CI, 3.4%- 6.2%) of Lancaster County adults (about 8,722 people) reported consuming 60 or more alcoholic drinks in the past month. This self-reported consumption level is defined as “chronic drinking.”

Prevalence and Trends

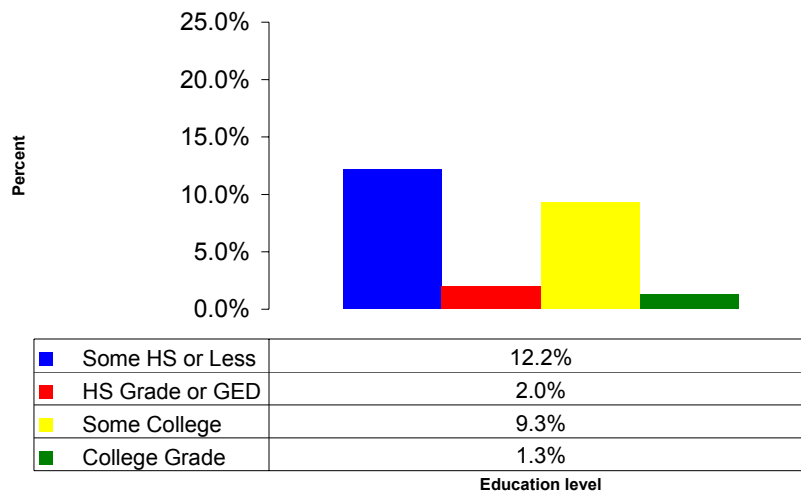
The prevalence estimated from the 1993-1995 surveys was 4.5 percent. It then dropped to 2.6 percent in 1996-1998 surveys and then again reached 4.8 percent in 1999, demonstrating an inconsistent trend (Fig.67).

Fig.67: Trend in Chronic Drinking



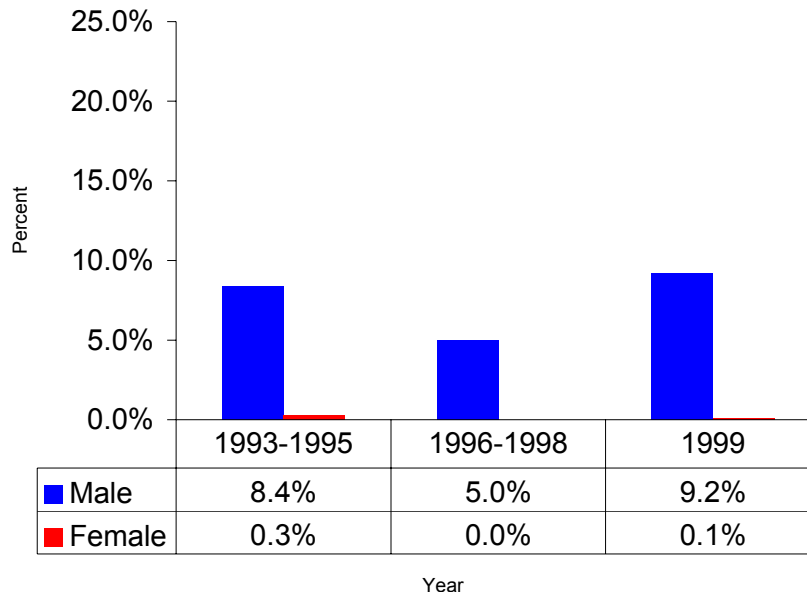
In 1999, adults whose highest education attainment was “some high school or less,” had the highest estimated prevalence of chronic drinking (12.2%), whereas 1.3 percent of adults with a college degree reported this behavior (Fig.68).

Fig.68: Chronic Drinking by Respondent's Education Level



As with binge drinking, the chronic drinking rate was higher among men (9.2%) than among women (0.10%, Fig.69).

Fig.69: Chronic Drinking by Gender



The rate of chronic drinking was somewhat higher among respondents aged 18-24 years (16%) than among respondents aged 65-74 years (1.3%, Table 18). The rates did not demonstrate any particular trends by race or income level.

Table 18: Chronic Drinking			
Year	1993-1995	1996-1998	1999
Annual Household Income			
Less than \$10,000	0%	0%	8.1%
\$10,000 - \$15,000	9%	0%	8.3%
\$15,000 - \$20,000	7.4%	12.1%	4.1%
\$20,000 - \$25,000	5%	1.5%	8.9%
\$25,000 - \$35,000	7.4%	7.2%	3.6%
\$35,000 - \$50,000	6.3%	0%	4%
\$50,000+	0.4%	1.7%	4.5%
Age Group			
18-24	7.8%	7.2%	16%
25-34	9.7%	0%	2.9%
35-44	0.9%	0%	2%
45-54	0%	5.7%	30%
55-64	3.6%	0%	0.9%
65-74	0%	0%	1.3%
75+	0%	4%	0%
Race			
White	4.2%	2.7%	4.9%
Non-White	10%	0%	0%

Drinking and driving

One out of every twenty (4.9%, 95% CI, 3.5% - 6.3%) adults in Lancaster County had driven after drinking too much alcohol in the month prior to the 1999 survey, comprising a total of 8,903 adults.

Prevalence and Trends

The rate of drinking and driving increased substantially over the past seven years. In 1993-1995, only 3.10 percent reported drinking and driving. This rate then increased slightly to 3.5% in the 1996-1998 period and then again sharply increased to 4.9 percent in 1999 (Fig 70).

Once again more men (10.5%) than women (5.9%) were involved in this type of high-risk behavior. Comparative prevalence ratios of drinking and driving between men and women were almost five (5.2%/1%) in 1993-1995, four in 1996-1998 (9.2%/2.8%) and nearly two (10.5%/5.9%) in 1999. Despite these reducing ratios between the sexes, the prevalence of driving while intoxicated has increased dramatically overall in the survey periods covered in this report for both sexes (Fig.71).

Fig.70: Trend in Drinking and Driving

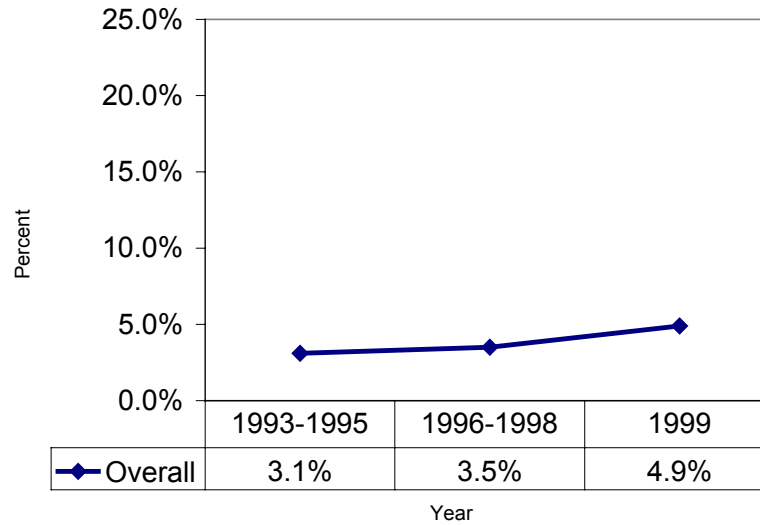
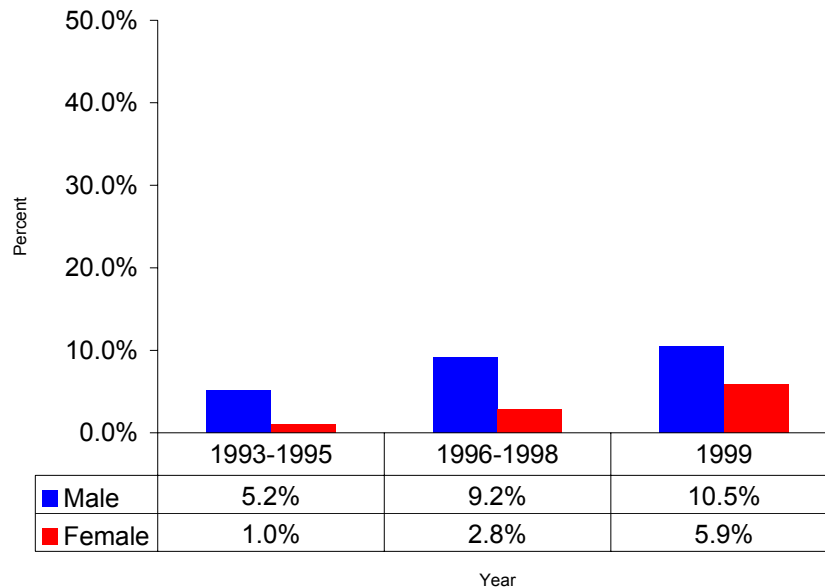


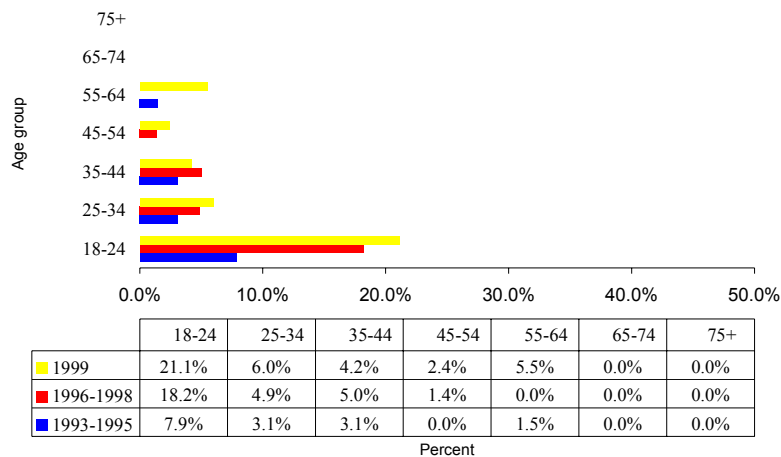
Fig.71: Trend in Drinking and Driving by Gender



The prevalence of drunk driving and advancing age groups demonstrated an inverse relationship; that is, the older the population the less they drive while intoxicated. While alcohol-impaired driving was most frequent among young adults aged 18-24 years (21.1%), it was completely absent (0%) among adults aged 65 and older.

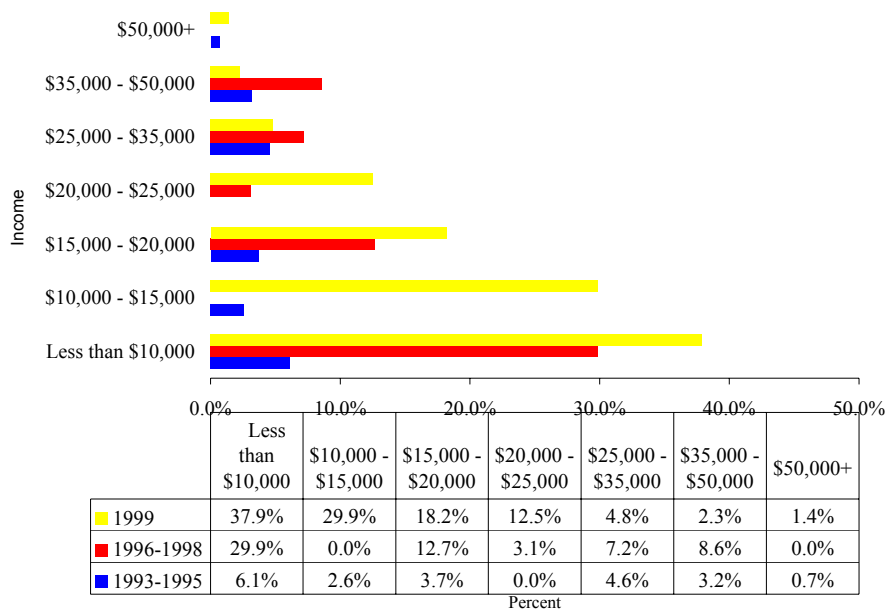
Age stratified rates other than those for persons 65 years old or more increased gradually between 1993 and 1999 (Fig.72).

Fig.72: Trend in Drinking and Driving by Age



The data support a conclusion that the less a person earns the more that person engages in drunk driving. For example, 37.9 percent of adults earning less than \$10,000 per year reported driving while intoxicated. This rate was 29.9 percent for income group of \$10,000-\$15,000; 18.2 percent for \$15,000-\$20,000; 12.5 percent for \$20,000-\$25,000; 4.8 percent for \$25,000-\$35,000; 2.3 percent for \$35,000-\$50,000; and only 1.4 percent for income over \$ 50,000. Since 1993-1995, the rate of driving while intoxicated increased alarmingly in the low-income groups (by 31.8 % in income less than \$10,000, Fig. 73).

Fig 73: Trend in Drinking and Driving by Income



Non-whites were twice as much likely to drive after too much alcohol consumption as (15%) whites (8.3%); even so, the overall rate of drunk driving increased in both groups since the 1993-1995 survey (Table 19). No trends were identified by respondent's education level.

Table 19: Drinking and Driving			
Years	1993-1995	1996-1998	1999
Highest Grade Completed			
Some HS or Less	0%	0%	18%
HS Grade or GED	3.7%	0.7%	9.8%
Some College	4.7%	13.1%	11.2%
College Grade	1.7%	4%	4.1%
Race			
White	2.7%	6.6%	8.3%
Non-White	10%	0%	15%